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Sheet 1 of 5

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Application Number	10/633,054
Filing Date	July 31, 2003
First Named Inventor	Michael D. Camras
Art Unit	2826
Examiner Name	Tran, Minh Loan
Attorney Docket Number	LUM-M-12775 US

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No.	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
MLT		US- 3,769,536	10-30-1973	Antypas et al.	
		US- 5,502,316	03-26-1996	Kish et al.	
		US- 5,376,580	12-27-1994	Kish et al.	
		US- 5,661,316	08-26-1997	Kish et al.	
		US- 5,779,924	07-14-1998	Krames et al.	
		US- 5,793,062	08-11-1998	Kish Jr. et al.	
		US- 6,015,719	01-18-2000	Kish Jr. et al.	
		US- 5,837,561	11-17-1998	Kish Jr. et al.	
		US- 5,724,376	03-03-1998	Kish Jr. et al.	
		US- 5,698,452	12-16-1997	Goossen	
		US- 5,553,089	09-03-1996	Seki et al.	
		US- 4,675,058	06-23-1987	Plaster	
		US- 5,255,171	10-19-1993	Clark	
		US- 6,429,462 B1	08-06-2002	Shveykin	
		US- 6, 483,196	11-19-2002	Wojnarowski et al.	
		US- 6,412,971	07-02-2002	Wojnarowski et al.	
		US- 6,495,862 B1	12-17-2002	Okazaki et al.	
		US- 6,091,020	07-18-2000	Fairbanks et al.	
MLT		US- 5,898,185	04-27-1999	Bojarczuk, Jr. et al.	

FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No.	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear
MLT		EP 0926744 A2	06-30-1999	Hewlett-Packard	
		JP 09167515-A	06-24-1997	Hewlett-Packard	
		JP 09153645	06-10-1997	Toyoda Gosei Co	
		WO 01/41219	6-7-2001	Cree Lighting Co	
		WO 01/41225	6-7-2001	Cree Lighting Co	
MLT		WO 00/69000	11-16-2000	RAM Opto Semicond	

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		Number-Kind Code ¹			
MLT		US- 5,917,201	06-29-1999	Ming-Jiunn et al.	
		US- 2002/0030194 A1	03-14-20002	Camras et al.	
		US- 4,983,009	01-08-1991	Musk	
		US- 6,214,733 B1	04-10-2001	Sickmiller	
		US- 5,553,089	09-3-1996	Seki et al.	
		US- 2002/0141006	10-3-2002	Pocius et al.	
		US- 6,091,694	7-18-2000	Späth	
		US- 5,925,898	7-20-1999	Späth	
		US- 6,155,699	12-5-2000	Miller et al.	
		US- 5,055,892	10-8-1991	Gardner et al.	
		US- 5,040,868	8-20-1991	Waitl et al.	
		US- 4,391,683	7-5-1983	Buckley et al.	
		US- 5,317,170	5-31-1994	Paoli	
		US- 4,689,652	8-25-1987	Shimada et al.	
		US- 6,075,627	6-13-2000	Feldman et al.	
		US- 5,130,531	7-14-1992	Ito et al.	
		US- 4,988,579	1-29-1991	Tomomura et al.	
		US- 4,815,084	3-21-1989	Scifres et al.	
MLT		US- 6,165,911	12-26-2000	Calvey	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				
MLT		WO 00/70687	11-23-2000	Osram Opto Semicon	I	✓
		WO 01/80322	10-25-2001	Osram Opto Semicon	I	✓
		WO 02/37578	5-10-2002	Osram Opto Semicon	I	✓
MLT						

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MLT		US- 6,469,785	10-22-2002	Duveneck et al.	
		US- 5,875,205	2-23-1999	Spaeth et al.	
		US- 5,528,057	6-18-1996	Yanagase et al.	
		US- 5,132,430	7-21-1992	Gaudiana et al.	
		US- 5,966,399	10-12-1999	Jiang et al.	
		US- 6,495,862 B1	12-17-2002	Okazaki et al.	
		US- 6,258,699 B1	12-5-2000	Miller et al.	
		US- 2004/0051106 A1	3-18-2004	Baur et al.	
MLT		US- 6,233,267	5-15-2001	Nurmikko et al.	
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Attorney Docket Number	LUM-M-12775 US

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NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
MLT		Chui et al., "High-Efficiency AlGaInP Light-Emitting Diodes", Semiconductor And Semimetals, Vol. 64, Chapter 2, pp. 49-128.	
		Babic et al., "Room-Temperature Continuous-Wave Operation of 1.54- μ m Vertical-Cavity Lasers", IEEE Photonics Technology Letters, Vol. 7, No. 11, November 1995, pp. 1225-1227.	
		Chua et al., "Dielectrically-Bonded Long Wavelength Vertical Cavity Laser on GaAs Substrates Using Strain-Compensated Multiple Quantum Wells", IEEE Photonics Technology Letters, Vol. 6, No. 12, December 1994, pp.1400-1402.	
		Fischer et al., "Highly Refractive Glasses to Improve Electroluminescent Diode Efficiencies", Journal of the Electrochemical Society: SOLID STATE SCIENCE, December 1969, pp. 1718-1722.	
		Carr, "Photometric Figures of Merit for Semiconductor Luminescent Sources Operating in Spontaneous Mode", Infrared Physics, 1966, Vol. 6, pp. 1-19.	
		Mary T. Strzelecki et al., "Low Temperature Bonding of Glasses and Glass Ceramics", 8 pages.	
		Robert D. Simpson et al., "Hybrid Glass Structures For Telecommunication Applications", 8 pages.	
		Joseph S. Hayden, "Passive and Active Characterization of Hybrid Glass Substrates for Telecommunication Applications, 8 pages.	
		J.W. OSENBACH, et al., "Low Cost/High Volume Laser Modules Using Silicon Optical Bench Technology, 1998 Electronic Components and Technology Conference, p. 581.	
MLT		"Aluminum Oxide, Al ₂ O ₃ For Optical Coating, CERAC, Inc. Technical Publications, pp. 1-4.	

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NON PATENT LITERATURE DOCUMENTS

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MLT		"Bulk Measurement", Sairon Technology, Inc., pp. 1-3.	
		THOMAS R. ANTHONY, "Dielectric isolation of silicon by anodic bonding", J. Appl. Phys. Vol. 58, No. 3, 1 August 1985, pp. 1240-1247.	
		JOSHUA ISRAELSOHN, "Switching the light fantastic", Techtrends", EDN, October 26, 2000, 10 pages.	
MLT		BORIS A. MATVEEV et al., "III-V Optically Pumped Mid-IR LEDs," Light-Emitting Diodes: Research in Manufacturing, and Applications, V.H. Walter Yao, E. Fred Schubert Editors, Proceedings of SPIE Vol. 4278 (2001), pp. 189-196.	

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